

**PROPOSITION 1E STORMWATER FLOOD MANAGEMENT GRANT APPLICATION  
CITY OF PALM SPRINGS  
TAHQUITZ CREEK LEVEE RECONSTRUCTION  
ATTACHMENT 11  
PROGRAM PREFERENCES**

**Description**

The Goals and Objectives of this Proposal is to allow for the repair and reconstruction of an existing flood control levee along the Tahquitz Creek within Palm Springs, CA, from its confluence with the Palm Canyon Wash extending upstream approximately 0.75 miles adjacent to the City's Wastewater Treatment Plant (WWTP). The repair and reconstruction of the levee would ensure the levee satisfies federal requirements for levee construction established in 44 CFR 65.10, and that the levee would withstand the effects of a 100-year storm in Tahquitz Creek and provide flood control protection to the adjacent WWTP.

This Proposal includes one project – Tahquitz Creek Levee Reconstruction. As a single project, the Proposal has independent utility and provides a complete synergy and linkage of the Purpose and Need and Goals and Objectives of the Proposal. There are no complications associated with coordinating implementation or operation of various projects, and the City is the only implementing agency associated with this project.

The following discussion will identify how the Proposal assists in meeting the Program Preferences described in the Proposition 84 & Proposition 1E Integrated Regional Water Management Guidelines, Section II.F.

This Proposal includes one project, which is a listed and pre-approved project adopted as part of the Coachella Valley IRWM program led by the Coachella Valley Regional Water Management Group (CVRWMG), whose purpose is to foster collaboration among water resource managers, develop and implement the IRWM Plan, and to enable the Coachella Valley region to apply for grants tied to DWR's IRWM program. The CVRWMG is a partnership composed of the five Coachella Valley water purveyors. Each of the water purveyors and their statutory authority over water is described below.

- Coachella Water Authority (CWA) is a joint powers authority formed as a component of the City of Coachella and Redevelopment Agency of the City of Coachella. CWA has statutory authority over water supply.
- Coachella Valley Water District (CVWD) is a public agency of the State of California organized and operating under County Water District Law, California Water Code §30000, et. seq. and Coachella District Merger Law, Water Code §33100, et seq. CVWD is a State Water Project contractor and Colorado River contractor empowered to import water supplies to its service area. CVWD has statutory authority over water supply.

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- Desert Water Agency (DWA) is an independent special district created by a special act of state legislature contained in Chapter 100 of the appendix of the California Water Code. DWA is also a State Water Project contractor empowered to import water supplies to its service area, replenish local groundwater supplies, and collect assessments necessary to support a groundwater replenishment program as provided for in the Desert Water Agency Law. DWA has statutory authority over water supply.
- Indio Water Authority (IWA) is a joint powers authority formed as a component of the City of Indio and Redevelopment Agency of the City of Indio. IWA has statutory authority over water supply.
- Mission Springs Water District (MSWD) is a County Water District formed under §30000 et seq. of the California Water Code. MSWD has statutory authority over water supply.

The five partners signed a Memorandum of Understanding (MOU) in September 2008 for the purpose of coordinating water resources planning activities and developing and adopting an IRWM Plan. Members of CVRWGM articulated their intent in Section 3 of the MOU:

*3.1.1 This MOU is to memorialize the intent of the Partners to coordinate and share information concerning water supply planning programs and projects and other information, and to improve and maintain overall communication among the Partners involved. It is anticipated that coordination and information sharing among the Partners will assist the agencies in achieving their respective missions to the overall well-being of the region.*

A copy of the executed MOU is included with Attachment 2 of this Proposal.

The MOU, as well as the formalization of the Coachella Valley as an approved region through the 2009 Region Acceptance Process (RAP), qualify the CVRWGM as a RWGM in accordance with §10539 of the California Water Code (CWC).

The CVIRWM Plan is included as an attachment to this Proposal.

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The Proposal satisfies the following Program Preference:

***Include regional projects or programs (CWC §10544)***

Riverside County Flood Control & Water Conservation District (RCFC) is in the process to certify all of the levees in Riverside County that RCFC owns, operates, and maintains. Several levees owned by RCFC in Palm Springs have been identified as Provisionally Accredited by FEMA, and RCFC is in the process to perform analysis and make improvements necessary to improve the levees to the criterion set forth in 44 CFR 65.10. The Tahquitz Creek Levee owned by the City of Palm Springs is the only levee in the City not owned by RCFC, and this project coordinates the process to certify all levees in the City, as well as Riverside County that are owned by RCFC.

The Proposal satisfies the following Statewide Priority:

***Practice Integrated Flood Management***

This Proposal includes one project to repair and reconstruct the Tahquitz Creek Levee, which has multiple benefits as described in the various Attachments and Exhibits included in this Proposal.

FEMA completed digital Flood Insurance Rate Maps (DFIRM's) for Riverside County, which were adopted August 28, 2008. As part of this process, FEMA required that communities provide evidence to demonstrate that levees meet the minimum requirements established in Title 44, Chapter 1 of the Code of Federal Regulations, Section 65.10. The Tahquitz Creek Levee has been identified as a "Provisionally Accredited Levee" ("PAL"), Levee ID 16, as the City has been unable to demonstrate that this levee meets all of the requirements set forth in 44 CFR 65.10. The levee does not meet freeboard and other requirements, and must be repaired and reconstructed in order to satisfy FEMA's requirements and ensure the levee continues to provide flood control protection to properties behind it, including the City's WWTP. The failure of the Tahquitz Creek levee during a 100-year storm represents a risk of releasing millions of gallons of untreated wastewater into the Tahquitz Creek, resulting in significant pollution of stormwater runoff and groundwater within Tahquitz Creek.

Given the context of the Tahquitz Creek Levee and its current deficiencies as determined in reviewing its construction relative to FEMA's requirements established in 44 CFR 65.10, implementing this Proposal (repairing and reconstructing the Tahquitz

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Creek Levee to provide adequate protection against the 100-year storm event) will result in several benefits related to this Statewide Priority, including:

**Better emergency preparedness and response**  
**Improved flood protection**

Implementing this Proposal will also result in several benefits related to this Statewide Priority, as follows:

*Wastewater Treatment – Recycling Water*

The City of Palm Springs owns and operates a 10.9 million gallon per day wastewater treatment plant (WWTP). The WWTP is located immediately adjacent to Tahquitz Creek. Due to flooding experienced in its past, in 1984 the City constructed a concrete lined levee adjacent to its WWTP. However, in accordance with FEMA regulations established in 44 CFR 65.10, this levee does not meet standards necessary to ensure the levee adequately protects the WWTP from flooding within Tahquitz Creek.

Desert Water Agency, the City's local domestic water provider, began its recycled water program with the opening of its reclamation plant in 1988. Through that plant, DWA is able to take wastewater and treat it to service other needs. Through its recycling program, DWA provides irrigation water to golf courses, parks, medians and the Palm Springs High School. The use of recycled water in landscaping saves millions of gallons of potable drinking water. Water recycling also saves energy – only using a quarter of the energy required to pump groundwater from deep wells. Recycled water use protects our water supply since its use reduces the amount of nitrates which could reach our groundwater.

DWA's reclamation process is dependent upon the City's wastewater treatment process. Wastewater first goes to the City of Palm Springs' WWTP where it is initially treated before DWA accepts it for further treatment at its reclamation plant. DWA treats the water again before it is ready for irrigation use.

Without the City's wastewater, DWA is unable to produce reclaimed water to satisfy its recycled users demand.

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According to the City's 2010 Annual Report to the Colorado River Regional Water Quality Control Board (RWQCB), the City accepted and treated 2,069.51 MG (over 2 Billion gallons) of wastewater. Of the total wastewater treated, 607.903 MG (over 600 Million gallons) was discharged to groundwater recharge via percolation ponds, and 1,461.603 MG (almost 1.5 Billion gallons) was delivered off-site to DWA for further treatment and ultimate use as irrigation water as part of DWA's reclamation efforts. A copy of the City's 2010 annual report to the RWQCB is included as an attachment to Exhibit D.

The City and DWA have an interdependent relationship on recycled use of wastewater for reclamation purposes. As indicated in its 2010 annual report to the RWQCB, the City provided over 1.5 Billion gallons of its wastewater to DWA for reclamation purposes – equivalent to over 70% re-use.

In the event a flood occurs in Tahquitz Creek which causes the Tahquitz Creek Levee to fail, the threat exists that flooding will inundate the City's WWTP which would have two significantly devastating results:

1. Render the City's WWTP inoperable, sending millions of gallons of untreated wastewater into Tahquitz Creek; and
2. Interrupt the City's ability to provide treated wastewater to DWA to satisfy its reclamation demand.

Thus, given the context of the City's relationship with DWA, and the interdependency on DWA's use of the City's treated wastewater for its own reclamation purposes, implementing this Proposal (repairing and reconstructing the Tahquitz Creek Levee to provide adequate protection against the 100-year storm event) will result in several benefits related to this Statewide Priority, including:

**More sustainable flood and water management systems**

**Enhanced floodplain ecosystems**

**LID techniques that store and infiltrate runoff while protecting groundwater**

The Proposal also satisfies the following Statewide Priority:

***Protect Surface Water and Groundwater Quality***

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This Proposal includes one project to repair and reconstruct the Tahquitz Creek Levee, which has multiple benefits as described in the various Attachments and Exhibits included in this Proposal.

The Tahquitz Creek Levee Reconstruction project will ensure the City's WWTP remains protected from 100 year floods in Tahquitz Creek, allowing the City to continue effectively treating billions of gallons of wastewater, and maintaining delivery of treated wastewater to DWA for reclamation purposes.

In addition, the risk of a failure of the existing levee has the potential to cause release of untreated wastewater into Tahquitz Creek. Tahquitz Creek has been identified by the RWQCB to have the following beneficial uses:

COLD – Cold Freshwater Habitat  
REC1 – Contact Water Recreation  
GWR – Ground Water Recharge  
MUN – Municipal and Domestic Supply  
REC2 – Non-Contact Water Recreation  
WILD – Wildlife Habitat

In the event a flood occurs in Tahquitz Creek causing failure of the levee adjacent to the City's WWTP, and further causing discharge of untreated wastewater into Tahquitz Creek, the beneficial uses of Tahquitz Creek would be affected.

Given the context of the Tahquitz Creek Levee and its current deficiencies as determined in reviewing its construction relative to FEMA's requirements established in 44 CFR 65.10, implementing this Proposal (repairing and reconstructing the Tahquitz Creek Levee to provide adequate protection against the 100-year storm event) will result in several benefits related to this Statewide Priority, including:

**Protecting and restoring surface water and groundwater quality to safeguard public and environmental health and secure water supplies for beneficial uses.**